

C5.6 Concrete Slab

C5.6.2 CCS LRFD

C5.6.2.1 General

C5.6.2.1.1 Policy overview

C5.6.2.1.2 Design information

C5.6.2.1.3 Definitions

C5.6.2.1.4 Abbreviations and notation

C5.6.2.1.5 References

C5.6.2.2 Loads

C5.6.2.2.1 Dead

For design under the AASHTO standard specifications the office considered the edge strip to be relatively narrow, only the width of the railing plus half the depth of the slab. When 25% of the dead load of the railing directly above was applied to the edge strip, the overall distribution of the railing loads to the bridge cross section was conservative. Under LRFD, however, the edge strip is much wider, usually 6 feet (1.829 m), and applying only 25% of the railing load to the edge strip would be unconservative. Therefore, the portion of the railing load to be applied to the edge strip was increased to 50%. With the increase, the railing load distribution is conservative for any bridge width more than 24 feet (7.315 m). At 24 feet (7.315 m), half the railing load will be applied to 6-foot (1.829-m) wide edge strips and half the load to the remainder of the cross section. For greater bridge widths the remainder of the cross section will be designed to carry more than half the railing load.

C5.6.2.2.2 Live

C5.6.2.2.3 Impact

C5.6.2.2.4 Railing

Methods Memo No. 139: Deck Design LRFD
1 January 2008

See C5.2.2.4.

C5.6.2.2.5 Earth pressure

C5.6.2.2.6 Earthquake

C5.6.2.2.7 Construction

MM No. 183: Policy Regarding Construction Loading
1 January 2008

See C5.5.2.2.6.

C5.6.2.3 Service Load Groups

C5.6.2.4 Continuous slabs

C5.6.2.4.1 Analysis and design

C5.6.2.4.1.1 Analysis assumptions

C5.6.2.4.1.2 Materials

C5.6.2.4.1.3 Design resistance

C5.6.2.4.1.4 Strip properties

C5.6.2.4.1.5 Moment

C5.6.2.4.1.6 Shear

C5.6.2.4.1.7 Camber and deflection

C5.6.2.4.1.8 Fatigue

C5.6.2.4.1.9 Additional considerations

Methods Memo No. 139: Deck Design LRFD

1 January 2008

See C5.2.2.4.

C5.6.2.4.2 Detailing

Methods Memo No. 10: Closure Pours

30 August 2001

See C5.2.4.1.2.

Methods Memo No. 144: Revised Policy for Transverse Joints for CCS and PCBM Bridges

1 February 2008

See C11.9.2.

Methods Memo No. 51: Revision to Top of Slab Elevation Sheet

5 February 2002

See C5.2.4.1.2.

Methods Memo No. 81: Deck Drains
24 March 2005

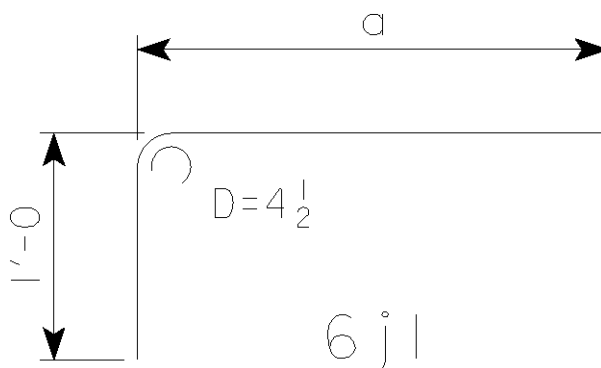
See C5.2.4.1.2.

Appendix for obsolete and superseded memos

Methods Memo No. 186: Revision Open Rail Details to J24-06, J30-06, J40-06, J44-06
5 November 2007 (These corrections have been made.)

An error has been found in the open rail details on the J24-06, J30-06, J40-06, and J44-06 continuous concrete slab standards. The 6j1 bar should have been shown as a variable bar as shown in the table below. When using the open rail details on the standards the following correction should be made to the length of the 6j1 bar and rebar weight.

Bridge Length	"a" dimension	Total length	Total number	Revised bar weight
70	3'-6	4'-6	152	1027
80	3'-7	4'-7	184	1267
90	3'-8	4'-8	200	1402
100	3'-9	4'-9	216	1541
110	3'-10	4'-10	232	1684
120	3'-11	4'-11	264	1950
130	4'-1	5'-1	280	2138
140	4'-2	5'-2	296	2297
150	4'-3	5'-3	312	2460



6j1 bar – Bent Bar Detail

Revisions will be made to the standards and released as soon as completed. If you have any questions please check with Dean Bierwagen or Thayne Sorenson.